LUMINARY Memo #182

To: Distribution
From: D. Densmore
Date: 8 December 1970
Subject: Luminary Revision 186

The following changes were implemented in Revision 186: PCRs 1044, 1082.2, 335, 339, and ACB L-40.

1) PCR 1044 (Redesign of R53-R57).

a) Log sections AOTMARK and P51-P53 were rewritten and tested in version LUMBLUM. The LUMBLUM log sections were punched out and put into Luminary replacing the Luminary log sections entirely, with a few minor changes to adjust word count in the different banks.

b) GOMANUR, 18 words in bank 7, was moved to bank 21 to make room for the new coding. It added 19 words to bank 21 because a "TC" had to be changed to use a "POSTJUMP" (it did not use Q).

2) ACB L-40 (Delete unused references to the display routines).

GOMARK2, MARKFORM, and GOMARK2R were deleted, yielding 6 words in bank 10. These words were needed for the implementation of PCR 339.

3) PCR 339 (Mechanize F1 V50 N72 display to be updated).

The call to set up the V50 N72 is made to a special entrance in the Display Interface Routine. This entrance sets a new bit in a mask (PRIMNMSK) for the priority display flag. Bit 8 of DSPFLG (formerly unused in the case of a priority display) becomes the "priority paste" bit. DIRs now call NVMONOPT in NVSUB with V16 N72 in A and V50 in L, based on that bit being on. NVMONOPT sets up both a monitor and a paste based on this information. P20 now calls this entrance, PRIOMONR, for its V50 N72.

4) PCR 335 (Remove alignment option from P63).

The coding for the alignment option (an RTB call to the display at the end of R51 with a "proceed" initiating a fine alignment and an "enter" returning immediately) was deleted. This made possible two other economies.

UNFC/2 formerly had to be stored in a vector temporary, R60VSAVE, for a computation after the possible alignment. Now the calculation is done directly at DDUMGOOD and the definition of **R60SAVE** (which shared with VBIAS) was deleted from erasable memory.

5) PCR 1082.2

PIOS Ephemeris data, star table, and **LOSSEM** Ephemerides were updated for future Mainline Apollo launches, Apollo 15 and subsequent.

The following items should be examined for impact on the various GSOP sections:

Section 4: items 1, 3, 4
Section 6: item 5.